UNITED STATES DEPARTMENT OF COMMERC United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

001095

7590

02/23/2004

THOMAS HOXIE NOVARTIS, CORPORATE INTELLECTUAL PROPERTY ONE HEALTH PLAZA 430/2 EAST HANOVER, NJ 07936-1080 EXAMINER

HUANG, EVELYN MEI

ART UNIT PAPER NUMBER

1625

DATE MAILED: 02/23/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,670	07/17/2003	Anup Kumar Ray	RG/G-32603A	2065

TITLE OF INVENTION: NOVEL SALT AND POLYMORPHS OF DESLORATADINE HEMIFUMARATE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	05/24/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

maintenance fee notifications.

or Fax (703) 746-4000 INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks I through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block I, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 001095 02/23/2004 7590 THOMAS HOXIE Certificate of Mailing or Transmission I hereby certify that this Fec(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below. NOVARTIS, CORPORATE INTELLECTUAL PROPERTY ONE HEALTH PLAZA 430/2 EAST HANOVER, NJ 07936-1080 (Depositor's name) (Signature) (Date) APPLICATION NO. FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE 10/621 670 07/17/2003 Anun Kumar Ray RG/G-32603A 2065 TITLE OF INVENTION: NOVEL SALT AND POLYMORPHS OF DESLORATADINE HEMIFUMARATE APPLN, TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE NO \$1330 \$1630 05/24/2004 nonprovisional \$300 **EXAMINER** CLASS-SUBCLASS ART UNIT HUANG, EVELYN MEI 1625 514-290000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignce is identified below, no assignce data will appear on the patent. Inclusion of assignce data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent);  $\square$  individual  $\square$  corporation or other private group entity government 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. Publication Fcc Payment by credit card. Form PTO-2038 is attached. ☐ Advance Order - # of Copies \_ ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to (enclose an extra copy of this form). Deposit Account Number Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Datc) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignce or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents Alexandria, Virginia Virginia 22313-1450. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,670	07/17/2003	Anup Kumar Ray	RG/G-32603A	2065
001095	7590 02/23/2004		EXAM	INER
THOMAS HO			HUANG, EV	ELYN MEI
NOVARTIS, CORPORATE INTELLECTUAL PROPERTY ONE HEALTH PLAZA 430/2			ART UNIT	PAPER NUMBER
EAST HANOVER, NJ 07936-1080		1625		
			DATE MAILED: 02/23/200	4

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)
.*		
Notice of Allowability	10/621,670 Examiner	RAY ET AL. Art Unit
. House of Americanity	Examine	Artome
	Evelyn Huang	1625
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this ap ) or other appropriate communication (IGHTS. This application is subject	oplication. If not included in will be mailed in due course. <b>THIS</b>
1. This communication is responsive to		
2. The allowed claim(s) is/are <u>1-6</u> .		
3. The drawings filed on are accepted by the Examine	er.	
<ul> <li>4.</li></ul>	e been received. e been received in Application No comments have been received in this for this communication to file a reply MENT of this application.  Initted. Note the attached EXAMINER res reason(s) why the oath or declar st be submitted. son's Patent Drawing Review (PTC)  's Amendment / Comment or in the 1.84(c)) should be written on the draw the header according to 37 CFR 1.121 posit of BIOLOGICAL MATERIAL	complying with the requirements  R'S AMENDMENT or NOTICE OF ration is deficient.  0-948) attached  Office action of rings in the front (not the back) of (d).  must be submitted. Note the
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/Paper No./Mail Date  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ⊠ Interview Summar Paper No./Mail Da 08), 7. ⊠ Examiner's Amend	ate
		Evelyn Huang Primary Examiner Art Unit: 1625

Application/Control Number: 10/621,670 Page 2

Art Unit: 1625

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Pfeiffer on 2-17-2004.

During the interview, the examiner suggested rewriting the claims in singular/alternative format to better define the claims.

As the polymorph form 1 or 2 will not retain its crystalline form in a solution, such a composition would be identical to the As the polymorph form 1 or 2 will not retain its crystalline form in a solution, such a composition would be identical to the pharmaceutical composition of Villani (4659716, PTO-1449) comprising descarbonylethoxy-loratedine hemifumarate (the hemifumarate is within the pharmaceutically acceptable salt as described in column 1 of Villani), and would be subjected to 103 rejection over Villani. The examiner therefore suggested amending the pharmaceutical composition to 'solid pharmaceutical composition' wherein the unobviousness of the polymorph form 1 or 2 is retained, thereby setting a demarcation from the composition of Villani.

The application has been amended as follows:

- a. Claim 1, line 1, replace 'forms 1 and 2' with -form 1 or 2 --.
- b. Claim 2,
  - Line 1, replace 'A pharmaceutical composition' with -A solid pharmaceutical composition --.
  - Lines 1-2, replace 'the polymorph forms' with –a polymorph form --.
- c. Claim 3, line 1, replace 'A pharmaceutical composition' with -A solid pharmaceutical composition --.
- d. Claim 4, line 1, replace 'A pharmaceutical composition' with -A solid pharmaceutical composition --.

Application/Control Number: 10/621,670 Page 3

Art Unit: 1625

e. Claim 6, lines 1-2, replace 'the polymorph forms of descarbonylethoxyloratadine hemifumarate' with -- the polymorph form 1 or 2 of descarbonylethoxyloratadine hemifumarate of claim 1 --.

### REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:
Claims 1-6 are allowed.

Villani (4659716, PTO-1449) discloses descarbonylethoxyloratadine and the pharmaceutically acceptable salts (including the furmarate and the hydrates thereof, column 26, claim 3; column 1). Lacking is the teaching or suggestion to prepare the instant polymorph form 1 or 2 of descarbonylethoxyloratadine hemifumarate.

WO 99/01450 (PTO-1449) or Schumacher (6506767, the US equivalent of WO 99/01450) discloses polymorphs of descarbonylethoxyloratadine. The instant is a polymorph form of descarbonylethoxy-loratadine hemifumarate having X-ray diffraction patterns different from Schumacher's polymorphs. Absent is the teaching or suggestion to prepare the instant polymorph form 1 or 2 of descarbonylethoxy-loratadine hemifumarate having the characteristic X-ray diffraction pattern.

Furthermore, the stability study convincingly indicates that the instant polymorphs 1 and 2 are more stable than free base desloratedine under stressed condition.

- 3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn Huang whose telephone number is 571-272-0686. The examiner can normally be reached on Tuesday-Friday.

Art Unit: 1625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman can be reached on 571-272-0693. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Evelyn Huang

Primary Examiner

Art Unit 1625